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108041-0012IN THE CLAIMS:

1. (currently amended) A system for servicing household appliances, the system including:

A. one or more monitoring subsystems associated with the one or more household appliances, each monitoring subsystem

- i. continuously monitoring the operations of a given household appliance and retaining as functional data information relating to the functioning of the household appliance,
- ii. analyzing the functional data and related historical and statistical data maintained by the monitoring subsystem and determining if the household appliance is in need of attention to avoid a failure of the household appliance, and
- iii. transmitting a message indicating that the household appliance requires attention and the related functional data, and

B. a center for receiving the messages sent by the monitoring subsystems in a plurality of households, the center analyzing the respective messages and the received data and related functional, historical and statistical data maintained by the service center and contacting one or more users of the associated household appliances to inform them of the particular attention required by the household appliances to avoid failures of the respective household appliances ~~and, as necessary, contacting appliance service people to arrange service for the household appliances.~~

2. (original) The system of claim 1 wherein each monitoring subsystem

- a. determines if the associated appliance requires immediate attention,
- b. produces alarm messages when immediate attention is required, and
- c. produces warning messages when other than immediate attention is required.

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3. (previously presented) The system of claim 1 wherein
- a. the monitoring subsystem sends additional functional data or aggregations of the data to the center; and
 - b. the center processes the data to determine if one or more of the appliances requires service in addition to the attention required to avoid failure.
4. (currently amended) The system of claim 3 wherein the center
- determines, if service is required, whether the user of the one or more appliances has a service contract that covers the particular service, and arranges service of the respective appliances in accordance with the provisions of the contract, if the user has a service contract.
5. (previously presented) The system of claim 4 wherein the center further
- determines, if the service required is preventive maintenance, whether the maintenance is of the type performed by the user or by an appliance service person,
 - arranges, if the maintenance is to be performed by a service person and the user has a maintenance contract for the appliance,
 - maintenance to be performed in accordance with the provisions of the contract, and
 - notifies the user what preventive maintenance is to be done if the maintenance is to be performed by the user.
6. (original) The system of claim 2 further including
- B. a network over which the monitoring subsystems transmit the messages;
 - C. a gateway connected to the network to receive the messages, the gateway

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- a. transmitting alarm messages to the center as soon as the messages are received, and
- b. retaining warning messages and transmitting the retained messages at predetermined times or when other transmissions are made to the center.

7. (previously presented) The system of claim 6 wherein

each monitoring subsystem aggregates the functional data over time into statistical data that relates to the operations of the associated appliance, the gateway polls each monitoring subsystem to request the statistical data,

the gateway transmits the statistical data to the center at predetermined times or when other transmissions are made to the center, and the center includes the statistical data in an analysis of the patterns of use and the operations of the appliances.

8. (previously presented) The system of claim 7 wherein the center

determines if a given appliance should be replaced based on the associated patterns of use,

recommends at appropriate times the replacement of the appliance with one or more appliance models that fit the associated pattern of use, determines if the user of the given appliance has a replacement contract, and if so, arranges for the delivery and installation of the replacement appliance model selected by the user.

9. (original) The system of claim 1 wherein one or more of the monitoring subsystems are adapters that monitor and analyze the energy consumption of the associated appliances.

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10. (original) The system of claim 1 wherein one or more of the monitoring subsystems monitor the settings of the associated appliances, and the states of various components of the appliances.

11. (original) The system of claim 10 wherein the monitoring subsystems aggregate the functional data into historical data, and use the historical data in the analysis of the operations of the appliances.

12. (currently amended) A method for servicing household appliances, the method including the steps of:

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- A. continuously monitoring the operations of one or more household appliances and retaining as functional data information relating to the functioning of the respective household appliances;
 - B. analyzing the functional data and related historical and statistical data maintained by the respective appliance monitoring devices at the household appliances and determining if the respective appliances are in need of attention to avoid failures;
 - C. transmitting to a remote center one or more messages indicating that respective household appliances require attention and related functional data; and
 - D. at ~~from~~ the center analyzing the messages and the related functional data received from a plurality of households and related functional, historical and statistical data maintained by the center and contacting the users of the associated household appliances to inform them that the respective associated appliances require attention to avoid failure.

13. (previously presented) The method of claim 12 further including the steps of transmitting data from the household appliances to the center,

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analyzing at the center the data from all of the household appliances in the household to determine if one or more appliances requires service in addition to the attention required to avoid failure.

14. (previously presented) The method of claim 13 wherein

the step of analyzing at the household appliance further includes determining if a given appliance requires immediate attention, and the step of transmitting one or more messages further includes producing alarm messages when immediate attention is required and producing warning messages when other than immediate attention is required.

15. (previously presented) The method of claim 14 wherein the step of contacting includes

determining, if service is required, whether the user of the appliance has a service contract for the appliance, and arranging service in accordance with the provisions of the contract, if the user has a service contract.

16. (previously presented) The method of claim 15 wherein the step of contacting further includes

determining, if preventive maintenance is required, whether the maintenance is performed by the user or an appliance service person, determining, if the maintenance is to be performed by a service person, whether the user has a maintenance contract for the appliance, arranging the maintenance to be performed in accordance with the provisions of the contract, and notifying the user what preventive maintenance is to be done if the maintenance is to be performed by the user.

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17. (previously presented) The method of claim 13 wherein the steps of transmitting include

transmitting the messages and data over a network to a gateway,
transmitting alarm messages and associated data from the gateway to the center as soon as the messages are received by the gateway, and
retaining warning messages and data at the gateway and transmitting the retained messages at predetermined times or when other transmissions are made to the center.

18. (previously presented) The method of claim 17 wherein

the step of analyzing further includes aggregating the functional data over time into statistical data that relates to the operations of the associated appliance,

the steps of transmitting further include polling from the gateway to request the statistical data and other data and transmitting the requested data to the center at predetermined times or when other transmissions are made to the center, and

the method further includes the step of including the statistical data in an analysis of the patterns of use and the operations of the appliances.

19. (previously presented) The method of claim 18 wherein the method further includes the steps of

determining if a given appliance should be replaced based on the analysis of patterns of use,

recommending replacement appliance models that fit the associated pattern of use,

determining if the user of the given appliance has a replacement contract, and if so, arranging for the delivery and installation of the replacement appliance model selected by the user.

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20. (original) The method of claim 12 wherein the step of monitoring includes monitoring the energy consumption of one or more of the appliances.

21. (original) The method of claim 20 wherein the step of monitoring includes monitoring the user-controlled settings of the associated appliances, the ambient environment and the states of various components of the appliances.

22. (original) The method of claim 21 wherein the step of analyzing includes aggregating the functional data into historical data, and using the historical data in the analysis of the operations of the appliances.

23. (previously presented) The method of claim 22 further including the steps of
transmitting the functional data to the remote center;
analyzing the data at the remote center to determine if the one or more appliances are in need of attention.

24. (currently amended) A system for servicing household appliances, the system including:

- A. one or more monitoring subsystems associated with the one or more household appliances, each monitoring subsystem
- i. continuously monitoring the operations of a given appliance and retaining as functional data information relating to the functioning of the appliance,
 - ii. analyzing the functional data and related historical and statistical data maintained by the monitoring subsystem and determining if the household appliance is in need of attention to avoid a failure, and
 - iii. transmitting the associated functional data and a message indicating that the household appliance requires attention, the message being either an alarm message if immediate attention is

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required or otherwise a warning message the associated functional data, and

iv. periodically transmitting the functional data,

B. a center for receiving the messages and the data sent by the monitoring subsystems from a plurality of households, the center analyzing the messages and the data and related functional, historical and statistical data maintained by the center and contacting the users of the associated household appliances to inform them of the attention required by the respective appliances to avoid failures.

25. (previously presented) The system of claim 24 wherein the center analyses the data from all of the appliances in the same household to determine changes in operating environment and uses the results in an analysis of the operations of the various appliance in the same household to determine if attention is required.

26. (previously presented) The system of claim 24 wherein the center analyses the data from a given type of appliance in the various households that report to the center and uses the results in an analysis of the operations of that type of appliance in each of the households to determine if attention is required.

27. (currently amended) A system for servicing household appliances, the system including:

A. one or more monitoring subsystems associated with the one or more household appliances, each monitoring subsystem monitoring the operations of a given appliance and retaining as functional data information relating to the functioning of the appliance,

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analyzing the functional data and related historical and statistical data maintained by the monitoring subsystem and determining if the appliance is in need of attention to avoid a failure of the appliance,

setting one or more local alarms when user attention is required by the appliance, and

transmitting a message indicating that the appliance requires attention and the related functional data if the user does not attend to the appliance within a predetermined time of setting the one or more alarms, and

- B. a center for receiving the messages and data sent by the monitoring subsystems in a plurality of households, the center analyzing the data and the messages and related functional, historical and statistical data and contacting the users of the associated household appliances to inform them of the particular attention required by the given appliance to avoid the failure.

28. (previously presented) The system of claim 27 wherein the center

further analyzes data from the appliances in a given household to determine if the appliance in need of attention requires additional service and if the other appliances require service, and

notifies the user of the additional service required by the given and other appliances.

29. (previously presented) The system of claim 28 wherein the center

further analyzes the data from various appliances in a given household to determine environmental conditions in which the appliances are operating, and

uses the environmental condition information in the analysis of the data from the appliances to determine which, if any, of the appliances requires service to avoid a failure.

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30. (previously presented) The system of claim 28 wherein the center further analyses the data from a given appliance in accordance with operating data from other appliances of the same type to determine if the given appliance requires service to avoid a failure.

31. (previously presented) The system of claim 28 wherein the monitoring subsystem, the center or both further analyses the operating data from a given appliance in accordance with historical operating data for the same appliance to determine if the given appliance requires service to avoid a failure.

32. (previously presented) The system of claim 28 wherein the center determines if the household has a service contract, and if so, arranges service for the appliances in accordance with the terms of the service contract.

33. (previously presented) The system of claim 27 wherein the center further analyses the operating data to determine if the given appliance is being used efficiently, and as indicated, notifies the user the given appliance is not being used efficiently.

34. (new) The system of claim 24 wherein the messages include therein message headers in which at least one bit is set to one value to indicate alarm messages and set to another value to indicate warning messages.

35. (new) The system of claim 24 wherein the monitoring subsystem further associates flags with the messages and sets the respective flags to indicate that particular messages have been sent, checks the flags to determine if a given message has already been sent, and sends a message if the flags indicate that the message has not been sent.

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36. (new) A system for servicing household appliances, the system including:

A. one or more monitoring subsystems associated with the one or more household appliances, the monitoring subsystems including

a. one or more intelligent household appliance monitoring subsystems, with each intelligent household appliance monitoring subsystem

continuously monitoring the operations of a given intelligent household appliance and retaining as functional data information relating to the functioning of the household appliance, analyzing the functional data and related historical and statistical data maintained by the monitoring subsystem and determining if the household appliance is in need of attention to avoid a failure of the household appliance, and transmitting a message indicating that the household appliance requires attention and related functional data,

b. one or more adaptors that connect non-intelligent household appliances to the system, with each adaptor

continuously monitoring at least the energy consumption of a given non-intelligent household appliance and retaining the energy consumption information as functional data relating to the functioning of the household appliance, analyzing the functional data and related historical and statistical data maintained by the adaptor and determining if the non-intelligent household appliance is in need of attention to avoid a failure of the household appliance, and transmitting a message indicating that the non-intelligent household appliance requires attention and including therein the related functional data,

iv. a center for receiving the messages sent by the monitoring subsystems and the adaptors in a plurality of households, the center analyzing the messages and the associated received data,

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and related functional, historical and statistical data maintained by the service center and contacting one or more users of the associated intelligent and non-intelligent household appliances to inform them of the particular attention required by the household appliances to avoid failures of the respective household appliances.

37. (new) The system of claim 36 wherein the adaptors further analyze related historical and statistical data in addition to the functional data to determine if the respective non-intelligent appliances require attention to avoid failure.

38. (new) The system of claim 36 wherein the monitoring subsystems determine if immediate attention is required to avoid failure, and if so send alarm messages and otherwise send warning messages.

39. (new) The system of claim 38 wherein the monitoring subsystems identify the messages as alarm or warning messages by setting at least one bit of a message header to a first condition or a second condition.

40. (new) The system of claim 38 wherein the monitoring subsystems associate flags with the messages and sets the respective flags to indicate that particular messages have been sent, check the flags to determine if a given message has already been sent, and send a message if the flags indicate that the message has not been sent.